

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A multiple-supply-voltage semiconductor device comprising:

at least one first block receiving a variable supply voltage, said at least one first block receiving a clock signal; and

at least one variable delay circuit which provides a delay in the clock ~~signals~~signal received by the at least one first block~~s~~, ~~said delay changing wherein the delay changes in~~ accordance with a change in the supply voltage provided to the at least one first block~~s~~;

wherein the clock signal received by the at least one first block is different from a clock signal received by an at least one second block.

2. (currently amended): The multi-supply-voltage semiconductor device according to claim 1, wherein ~~the said at least one~~ variable delay circuit includes circuitry to increase ~~increases~~ the delay as the supply voltage decreases.

3. (currently amended): A multi-supply-voltage semiconductor device comprising:
at least one first block receiving a variable supply voltage, said at least one first block receiving a clock signal;

a voltage level detector circuit which detects a voltage level of the supply voltage; and

at least one variable delay circuit which provides a delay in the clock signal received by the at least one block; ~~said delay changing wherein the delay changes~~ in accordance with a change in the voltage level detected by the voltage level detector circuit;

wherein the clock signal received by the at least one first block is different from a clock signal received by an at least one second block.

4-5. (canceled).

6. (currently amended): ~~The multi-supply-voltage semiconductor device according to claim 1, further comprising: A multiple-supply-voltage semiconductor device comprising:~~
at least one block receiving a variable supply voltage, said at least one block receiving a clock signal;

at least one variable delay circuit which provides a delay in the clock signal received by the at least one block, said delay changing in accordance with a change in the supply voltage provided to the at least one block;

a voltage change detector circuit which detects a change in the supply voltage; and

a blocking unit that prevents the clock signal from being supplied to the at least one block during a period in which the voltage change detector circuit detects a change in the supply voltage.

7. (rejoined, currently amended): ~~The multi-supply-voltage semiconductor device according to claim 1, further comprising: A multiple-supply-voltage semiconductor device comprising:~~

at least one block receiving a variable supply voltage, said at least one block receiving a clock signal;

at least one variable delay circuit which provides a delay in the clock signal received by the at least one block, said delay changing in accordance with a change in the supply voltage provided to the at least one block;

a minimum voltage detector circuit which generates and outputs a power supply control signal which provides control to limit the supply voltage within a predetermined range; and

a power supply control circuit which controls the supply voltage in accordance with the power supply control signal.

8-9 (canceled).

10. (currently amended): ~~The multi-supply-voltage semiconductor device according to claim 2~~claim 6, further comprising:

~~a voltage change detector circuit which detects a change in the supply voltage; and~~

~~a blocking unit that prevents the clock signal from being supplied to the at least one block during a period in which the voltage change detector circuit detects a change in the supply voltage, wherein said at least one variable delay circuit includes circuitry to increase the delay as the supply voltage decreases.~~

11. (currently amended): ~~The multi-supply-voltage semiconductor device according to claim 3, further comprising: A multi-supply-voltage semiconductor device comprising:~~

at least one block receiving a variable supply voltage, said at least one block receiving a clock signal;

a voltage level detector circuit which detects a voltage level of the supply voltage;

at least one variable delay circuit which provides a delay in the clock signal received by the at least one block, said delay changing in accordance with a change in the voltage level detected by the voltage level detector circuit;

a voltage change detector circuit which detects a change in the supply voltage; and

a blocking unit that prevents the clock signal from being supplied to the at least one block during a period in which the voltage change detector circuit detects a change in the supply voltage.

12-13. (canceled).

14. (rejoined, currently amended): The multi-supply-voltage semiconductor device according ~~claim 2~~claim 7, ~~further comprising:~~

~~a minimum voltage detector circuit which generates and outputs a power supply control signal which provides control to limit the supply voltage within a predetermined range; and~~

~~a power supply control circuit which controls the supply voltage in accordance with the power supply control signal- wherein said at least one variable delay circuit includes circuitry to increase the delay as the supply voltage decreases.~~

15-17. (canceled).

18. (previously presented): A multiple-supply-voltage semiconductor device according to claim 1, wherein the at least one variable delay circuit comprises a multistage inverter comprising multiple inverters connected in series.

19. (previously presented): A multiple-supply-voltage semiconductor device according to claim 1, wherein the at least one variable delay circuit comprises a plurality of stacked inverter stages.

20. (previously presented): A multiple-supply-voltage semiconductor device according to claim 6, wherein said voltage change detector circuit comprises:

an analog to digital converter circuit;

a flip-flop circuit;

and a comparator.

21. (previously presented): A multiple-supply-voltage semiconductor device according to claim 20, wherein said comparator compares a first digital information held in said flip-flop circuit with a second digital information output from said analog to digital converter circuit, and detects a change in the supply voltage if said first and second digital information do not match.

22. (previously presented): ~~A multiple-supply-voltage semiconductor device~~
~~according to claim 3, A multi-supply-voltage semiconductor device comprising:~~

at least one block receiving a variable supply voltage, said at least one block receiving a clock signal;

a voltage level detector circuit which detects a voltage level of the supply voltage; and
at least one variable delay circuit which provides a delay in the clock signal received by the at least one block, said delay changing in accordance with a change in the voltage level detected by the voltage level detector circuit;

wherein said voltage level detector circuit comprises a differential amplifier into which the supply voltage and a reference voltage is input.

23. (previously presented): ~~A multiple-supply-voltage semiconductor device according to claim 3,~~ A multi-supply-voltage semiconductor device comprising:

at least one block receiving a variable supply voltage, said at least one block receiving a clock signal;

a voltage level detector circuit which detects a voltage level of the supply voltage; and
at least one variable delay circuit which provides a delay in the clock signal received by the at least one block, said delay changing in accordance with a change in the voltage level detected by the voltage level detector circuit;

wherein said at least one variable delay circuit comprises a selector and a delay gate, wherein the delay gate delays the clock signal and the selector outputs to the at least one block either the clock signal or the delayed clock signal generated by the delay gate.

24. (previously presented): A multiple-supply-voltage semiconductor device according to claim 23, wherein said delay gate comprises at least one inverter.

25. (previously presented): ~~A multiple-supply-voltage semiconductor device~~
~~according to claim 3, A multi-supply-voltage semiconductor device comprising:~~
~~at least one block receiving a variable supply voltage, said at least one block receiving a~~
~~clock signal;~~
~~a voltage level detector circuit which detects a voltage level of the supply voltage; and~~
~~at least one variable delay circuit which provides a delay in the clock signal received by~~
~~the at least one block, said delay changing in accordance with a change in the voltage level~~
~~detected by the voltage level detector circuit;~~

wherein said at least one variable delay circuit comprises a selector and a plurality of
delay gates, wherein each one of said plurality of delay gates provides a different delay to the
clock signal and the selector outputs to the at least one block either the clock signal or one of the
delayed clock signals generated by the delay gate.

26. (previously presented): A multiple-supply-voltage semiconductor device
according to claim 23, wherein said delay gate comprises at least one inverter.

27-28. (canceled).

29. (previously presented): A multiple-supply-voltage semiconductor device
according to claim 3, wherein the voltage level detector circuit outputs the detected voltage level
as a voltage level detect signal.